

Date: Tue, 7 Sep 93 04:30:26 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #34
To: Ham-Homebrew

Ham-Homebrew Digest Tue, 7 Sep 93 Volume 93 : Issue 34

Today's Topics:

 311-A/B Vacuum tube info needed
 NASA select rcvr
 Program, convert from S params -> Spice model (3 msgs)
 TV SAP Audio channel decoder circuit wanted
 What kits would you like to see? (3 msgs)

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 4 Sep 93 16:59:55 GMT
From: mercury.hsi.com!a3bee2!cyphyn!randy@uunet.uu.net
Subject: 311-A/B Vacuum tube info needed
To: ham-homebrew@ucsd.edu

The tube is an 5 pin older one, top grid connector and is a pentode.

The info I really need is the filament volts...I suspect it's 2.5v 1.75a

tnx

--

Randy KA1UNW

 If you get a shock while
 servicing your equipment,
 DON'T JUMP!
 You might break an expensive tube!

"Works for me!"
 -Peter Keyes

Date: Tue, 7 Sep 1993 03:33:20 GMT
From: usc!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!mksol!blair@network.ucsd.edu
Subject: NASA select rcvr
To: ham-homebrew@ucsd.edu

Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

: While you can homebrew a TVRO system, it isn't very easy without
: access to good microwave test equipment, and the commercial gear
: is cheap. If you're on REA, your utility may offer a dish package
: for a monthly charge. Mine offers a turnkey setup for \$6 a month
: plus any descrambling fees. That beats cable pricing, and *you*
: get to select which channels to carry while not having to buy any
: equipment or concern yourself with any maintenance.

: Of course, you'll have to buy a TV too.

I'm an RF engineer and can probably assemble a one channel receiver myself. I've got test equipment at work I can use on weekends. Can you (or anyone) recommend a good source of technical info for homebrew TVRO?

As for buying a TV... Perish the thought! I'd sooner be boiled in oil! I'll convert/demod down to composite video or RGB and run into an old C64 monitor.

Art.

Date: 6 Sep 1993 14:08:37 GMT
From: swrinde!cs.utexas.edu!wupost!udel!newsserv.cs.sunysb.edu!rick@network.ucsd.edu
Subject: Program, convert from S params -> Spice model
To: ham-homebrew@ucsd.edu

Does anyone happen to have a pointer to a PD program that will take a set of S parameters and crunch them backwards into a Spice compatible model? Ideally, I would like to get something that will produce models for both BJTs and the various types of FETs. I have read that Compact Software's SuperCompact can produce such models, but for casual tinkering, I am sure the price is way off of my league :-)

Alternatively, I would appreciate any pointers to literature that would describe the search algorithms for constructing such models from S params.

Thanks - Rick Spanbauer, SUNY/Stony Brook

Date: Mon, 6 Sep 1993 18:57:28 GMT
From: pipex!sunic!ericom!xio.ericsson.se!ted@uunet.uu.net
Subject: Program, convert from S params -> Spice model
To: ham-homebrew@ucsd.edu

In article <26fg95\$1tk@newsserv.cs.sunysb.edu> rick@cs.sunysb.edu (Rick Spanbauer) writes:

>Does anyone happen to have a pointer to a PD program that will take
>a set of S parameters and crunch them backwards into a Spice
>compatible model?

Principally, this is not possible, since SPICE-models for MOS och BJT are large-signal models and the s-parameters describe the small-signal behaviour in a working point. Of course, it is possible to extract a small-signal only model for SPICE, but what's the point?

The other way is OK and actually no special programs are needed for this. The methods are described in books.

--
/// Ted Johansson, Dr.Tech. | aka.ekated@memo.ericsson.se ///
/// ERICSSON COMPONENTS AB | S-164 81 KISTA, SWEDEN ///

Date: 6 Sep 1993 20:25:58 GMT
From: usc!wupost!udel!newsserv.cs.sunysb.edu!rick@network.ucsd.edu
Subject: Program, convert from S params -> Spice model
To: ham-homebrew@ucsd.edu

T/TT Ted Johansson (ted@xio.ericsson.se) wrote:
: In article <26fg95\$1tk@newsserv.cs.sunysb.edu> rick@cs.sunysb.edu (Rick Spanbauer) writes:

: >Does anyone happen to have a pointer to a PD program that will take
: >a set of S parameters and crunch them backwards into a Spice
: >compatible model?

: Principally, this is not possible, since SPICE-models for MOS och BJT
: are large-signal models and the s-parameters describe the small-signal
: behaviour in a working point. Of course, it is possible to extract a
: small-signal only model for SPICE, but what's the point?

Yes, I meant the small signal, linear model. It is useful to have such a model to use in conjunction with SPICE, as one can build

and model eg amplifiers before building a prototype.

: The other way is OK and actually no special programs are needed for this. The
: methods are described in books.

Reference, please?

: /// Ted Johansson, Dr.Tech. | eka.ekated@memo.ericsson.se ///

Rick Spanbauer
SUNY/Stony Brook

Date: 6 Sep 93 14:00:22
From: swrinde!sdd.hp.com!spool.mu.edu!uwm.edu!rpi!usenet.rpi.edu!
maessm@network.ucsd.edu
Subject: TV SAP Audio channel decoder circuit wanted
To: ham-homebrew@ucsd.edu

In article <wa2iseCCqKIG.6Kw@netcom.com> wa2ise@netcom.com (Robert Casey) writes:

If I remember rightly, DBX is similar to Dobyly in that high audio freqs
are boosted during low volume periods. Rolling off the audio highs
will probably be good enough.

I believe that DBX also has 2:1 compandoring (i.e., a 2 dB change of signal
level is converted to a 1 dB change) above a certain threshold. This requires
a gated expander at the receiving end in order to decode.

--
Mat Maessen N2NJZ | maessm@rpi.edu

-----+-----
disclaimer: Anyone NOT singing will have a can of Foster's lobbed at
their heads.

(c) 1993 Fake-sig Co., Inc.

Date: 5 Sep 1993 18:50:38 GMT
From: usc!elroy.jpl.nasa.gov!swrinde!gatech!howland.reston.ans.net!
darwin.sura.net!blackhole.delmarva.com!blackhole.delmarva.com!
news@network.ucsd.edu
Subject: What kits would you like to see?
To: ham-homebrew@ucsd.edu

In article BC2@dma.pub.dma.org, hanauerj@dma.pub.dma.org (John Hanauer) writes:

> I'd like to see a kit for an RF cannon which is capable of
> causing interference or out and out disabling of car or
> fixed location radios, stereos, and such equipment. This
> equipment must obviously operate in a very discrete manner.
> It must also be cost effective. It would be nice if this
> thing could be portable. Can you generate a kit that would
> do this?
> John Hanauer -- hanauerj@dmaphub.dma.org

Small tactical nuclear weapons exploded in the neighborhood should generate sufficient Electro-Magnetic Pulse to do the job. I imagine the CIS military may have some leftover :-) Although the government might get a tad upset.

I think the inverse square law (not to mention the Communications Act of 1934) might make this a useless proposition.

- John

+-----+
| John K. Scoggin, Jr. Email: scoggin@delmarva.com |
| Supervisor, Network Operations Phone: (302) 451-5200 |
| Delmarva Power & Light Company Fax: (302) 451-5321 |
| 500 N. Wakefield Drive NOC: (800) 388-7076 |
| Newark, DE 19714-6066 |
| The opinions expressed are not those of Delmarva Power, simply the |
| product of an over-active imagination... |
| Time is Nature's way of preventing everything from happening at |
| once; it's not working too well here in NetOps! |
+-----+

Date: Mon, 6 Sep 93 17:52:52 GMT
From: mercury.hsi.com!a3bee2!cyphyn!randy@uunet.uu.net
Subject: What kits would you like to see?
To: ham-homebrew@ucsd.edu

I 'd like to see kits that use parts one can actually get / still get.

--
Randy KA1UNW If you get a shock while "Works for me!"
 servicing your equipment, -Peter Keyes
 DON'T JUMP!

You might break an expensive tube!

Date: 6 Sep 1993 23:57:12 GMT

From: swrinde!gatech!concert!news-feed-2.peachnet.edu!hobbes.cc.uga.edu!

aisun3.ai.uga.edu!mcovingt@network.ucsd.edu

Subject: What kits would you like to see?

To: ham-homebrew@ucsd.edu

In article <1993Sep6.175252.6021@cyphyn.UUCP> randy@cyphyn.UUCP (Randy) writes:
> I 'd like to see kits that use parts one can actually get / still get.

That is a perennial problem for those of us that write magazine articles or design kits. The supply of available parts is subject to unpredictable fluctuation. If Radio Shack comes out with an interesting IC, then you can bet that by the time the article is published (maybe 9 months later), they will no longer have it.

I *did* do *one* thing for the good of the hobby, though; I persuaded Digi-Key to carry the NE602. That's my one good deed for electronics...

--

:- Michael A. Covington, Associate Research Scientist : *****
:- Artificial Intelligence Programs mcovingt@ai.uga.edu : *****
:- The University of Georgia phone 706 542-0358 : * * *
:- Athens, Georgia 30602-7415 U.S.A. amateur radio N4TMI : ** *** ** <><

Date: Tue, 7 Sep 1993 00:13:18 GMT

From: netcomsv!netcom.com!trimm@decwrl.dec.com

To: ham-homebrew@ucsd.edu

References <26dc08INNl6r@rave.larc.nasa.gov>, <1993Sep6.175252.6021@cyphyn.UUCP>,
<26gioo\$5jb@hobbes.cc.uga.edu>

Subject : Re: What kits would you like to see?

In article <26gioo\$5jb@hobbes.cc.uga.edu> mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

>In article <1993Sep6.175252.6021@cyphyn.UUCP> randy@cyphyn.UUCP (Randy) writes:

>> I 'd like to see kits that use parts one can actually get / still get.

>

>That is a perennial problem for those of us that write magazine articles
>or design kits. The supply of available parts is subject to unpredictable
>fluctuation. If Radio Shack comes out with an interesting IC, then you
>can bet that by the time the article is published (maybe 9 months later),

>they will no longer have it.

>

>I *did* do *one* thing for the good of the hobby, though; I persuaded
>Digi-Key to carry the NE602. That's my one good deed for electronics...

The kit I've been waiting for is the Comprimping EMI Exploitation Kit, which is often called Van Eck Phreaking. It's a box of maybe \$75 worth of stuff that allows you to point an antenna at someone's CRT and duplicate their screen on your own CRT. This is why Tempest and its predecessors were adopted by DoD. Dr. William Van Eck of PTT Netherlands demonstrated the device on a (PBS?) documentary, heck, it must be almost ten years ago. I have a crude scematic of such a device, but it looks like too much of a kludge for me to build, and I'm not an analog guy, so if it didn't work I might have a bit of a time with it.

--

Gary M. Watson

Trimm Industries

North Hollywood, CA 91605

Internet: trimm@netcom.com

Compuserve 72242,3437

* See the Trimm RAID-Ready Disk Enclosures at Comdex Las Vegas Nov 15-19 *

End of Ham-Homebrew Digest V93 #34
